

WHAT IS CLAIMED IS:

1. A composition, comprising:
a substantially spherical polymer particle having a diameter of about 1200 microns or less,
5 wherein the particle contains an agent comprising a radioactive species.
2. The composition of claim 1, wherein the particle has an interior with a density of large pores and a surface region with a density of large pores, and the density of large pores of the interior is greater than the density of large pores of the surface region.
- 10 3. The composition of claim 1, wherein the agent comprises a therapeutic agent.
4. The composition of claim 1, wherein the radioactive species comprises a radioactive molecule.
- 15 5. The composition of claim 1, wherein the radioactive species comprises a radioisotope.
6. The composition of claim 5, wherein the radioisotope is selected from the group consisting of yttrium (^{90}Y), lutetium (^{177}Lu), actinium (^{225}Ac), praseodymium, astatine (^{211}At), rhenium (^{186}Re), bismuth (^{212}Bi or ^{213}Bi), holmium (^{166}Ho), samarium (^{153}Sm), iridium (^{192}Ir), rhodium (^{105}Rh), iodine (^{131}I or ^{125}I), indium (^{111}In), technetium (^{99}Tc), phosphorus (^{32}P), sulfur (^{35}S), carbon (^{14}C), tritium (^3H), chromium (^{51}Cr), chlorine (^{36}Cl), cobalt (^{57}Co or ^{58}Co), iron (^{59}Fe), selenium (^{75}Se), and gallium (^{67}Ga).
- 25 7. The composition of claim 5, wherein the radioisotope is bound to an antibody.
8. The composition of claim 7, wherein the antibody is selected from the group consisting of RS7, hRS7, MOv18, MN-14 IgG, CC49, COL-1, NP-4 F(ab')₂ anti-CEA, anti-PSMA, ChL6, m-170, antibodies to CD20, antibodies to CD74 and antibodies to CD52
30 antigens.

9. The composition of claim 7, wherein the antibody is a monoclonal antibody.

10. The composition of claim 9, wherein the monoclonal antibody is selected
5 from the group consisting of mAB A33, m-170, antibodies to CD20, antibodies to CD74, and
antibodies to CD52 antigens.

11. The composition of claim 1, wherein the polymer is selected from the group
consisting of polyvinyl alcohol, polycaprolactone, polylactic acid and
10 poly(lactic-co-glycolic) acid.

12. The composition of claim 1, wherein the polymer comprises polyvinyl
alcohol.

13. The composition of claim 1, wherein the agent is in an interior of the particle.
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14. The composition of claim 1, wherein the agent is on a surface region of the
particle.

15. A method comprising:
20 delivering to a subject a composition that comprises a substantially spherical polymer
particle having a diameter of about 1200 microns or less,
wherein the particle contains an agent comprising a radioactive species.

16. The method of claim 15, wherein the particle has an interior with a density of
25 large pores and a surface region with a density of large pores, and the density of large pores
of the interior is greater than the density of large pores of the surface region.

17. The method of claim 15, wherein the agent comprises a therapeutic agent.
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18. The method of claim 15, wherein the radioactive species comprises a radioactive molecule.

19. The method of claim 15, wherein the radioactive species comprises a radioisotope.

20. The method of claim 15, wherein the composition is used to treat a cancer condition.

21. The method of claim 20, wherein the cancer condition is selected from the group consisting of ovarian cancer, colorectal cancer, thyroid cancer, gastrointestinal cancer, breast cancer, prostate cancer and lung cancer.

22. The method of claim 15, wherein the radioisotope is bound to an antibody.

23. The method of claim 22, wherein the antibody is capable of binding to one or more antigens at a treatment site of the subject.

24. The method of claim 23, wherein the radioactive species is released at the treatment site.

25. The method of claim 15, wherein the composition is delivered by percutaneous injection.

26. The method of claim 15, wherein the composition is delivered by a catheter.

27. A method of making a composition, the method comprising:
disposing a radioactive species in a substantially spherical polymer particle having a diameter of about 1200 microns or less.

28. The method of claim 27, wherein the particle has an interior with a density of large pores and a surface region with a density of large pores, and the density of large pores of the interior is greater than the density of large pores of the surface region.

5 29. The method of claim 27, wherein the radioactive species comprises a therapeutic agent.

30. The method of claim 27, wherein the radioactive species comprises a radioactive molecule.

10 31. The method of claim 27, wherein the radioactive species comprises a radioisotope.

15 32. The method of claim 27, further comprising disposing the radioactive species on a surface region of the particle.

33. A method of making a composition, the method comprising:
disposing a radioactive species on a surface region of a substantially spherical polymer particle having a diameter of about 1200 microns or less.

20 34. The method of claim 33, wherein the particle has an interior with a density of large pores and a surface region with a density of large pores, and the density of large pores of the interior is greater than the density of large pores of the surface region.

25 35. The method of claim 33, wherein the radioactive species comprises a therapeutic agent.

36. The method of claim 33, wherein the radioactive species comprises a radioactive molecule.

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37. The method of claim 33, wherein the radioactive species comprises a radioisotope.